VEGF164 Protein, Rat (sf9)

Cat. No.:	HY-P76122
Synonyms:	VEGF-AA; Vascular endothelial growth factor A; Vascular permeability factor; VPF; VEGFA; VEGFA164; VEGF164
Species:	Rat
Source:	Sf9 insect cells
Accession:	P16612-2 (A27-R190)
Gene ID:	83785
Molecular Weight:	Approximately 25 kDa

PROPERTIES

Biological Activity	Measured in a cell proliferation assay using human umbilical vein endothelial cells (HUVEC) and the ED_{50} is typically 1-10 ng/mL.
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 100 mM Glycine, 10 mM NaCl, pH 7.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	VEGF164, a growth factor with pivotal roles in angiogenesis, vasculogenesis, and endothelial cell growth, orchestrates a range of cellular responses crucial for vascular development. It stimulates endothelial cell proliferation, facilitates cell migration, prevents apoptosis, and enhances blood vessel permeability by binding to receptors such as FLT1/VEGFR1 and KDR/VEGFR2, as well as heparan sulfate and heparin. During lactation, VEGF164 may contribute to increased vascular permeability, supporting efficient transport of molecules for milk protein synthesis. Additionally, its interaction with the NRP1 receptor initiates signaling pathways essential for motor neuron axon guidance and cell migration, underscoring its involvement in embryonic development processes. Existing as a homodimer with disulfide linkage, VEGF164 also forms a heterodimer with PGF and interacts with isoform 2 of BSG, revealing its multifaceted molecular interactions.

Caution: Product has not been fully validated for medical applications. For research use only.

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